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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/389,720	09/03/1999	BRENTON L. DICKEY	MICRON.086A/	5782
20995	7590	07/13/2004	EXAMINER	
KNOBBE MARTENS OLSON & BEAR LLP			MITCHELL, JAMES M	
2040 MAIN STREET			ART UNIT	
FOURTEENTH FLOOR			PAPER NUMBER	
IRVINE, CA 92614			2827	

DATE MAILED: 07/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/389,720

Applicant(s)

DICKEY, BRENTON L.

Examiner

James M. Mitchell

Art Unit

2827

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 February 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 20-24, 26, 29, 30 and 59-80 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 62-80 is/are allowed.
- 6) ☒ Claim(s) 20-24, 29 and 59-61 is/are rejected.
- 7) ☒ Claim(s) 26 and 30 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>2/23/04</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Drawings***

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the teeth of claim 60 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 20-24, 29, 59, 60 and 61 are rejected under 35 U.S.C. 102(e) as being anticipated by Farnworth et al. (U.S. 6,319,354).

Farnworth (Fig 1, 2A, 5, 6, 11) discloses an assembly, comprising: (cl. 20) a film (12, 20) including a plurality of substrate units with said plurality of substrate Units (14) being electrically interfaced (i.e. wire, 34) with a plurality of dies (22), each one of said substrate units including a substantially central cavity (30) adapted to

receive wires (34) from a corresponding die which connect to a first surface of said film (i.e. top portion), said dies being attached to a second surface (i.e. bottom portion) of said film with said second surface being opposed to said first surface; and a carrier (18, 56) in mechanical communication (i.e. item 56) with said first surface of said film for providing enhanced rigidity to said film (i.e. "carrier") by being sized and configured to add material at selected regions of said film, wherein said carrier is removed from said assembly ("removing insert from carrier"; Fig 11) upon completion of at least a portion of a process of manufacturing die packages; (cl. 21) wherein said plurality of substrate units are grouped into substrate sets (Fig 5; i.e. multiple substrate units, item 14); (cl. 22) and said substrate sets comprise three substrate units; (cl. 23) with a plurality of cross bars (108) and wherein each cross bar is located near a substrate set; (cl. 24) and said plurality of dies comprise lead-over-chips (LOC) (i.e. leads/ "conductors," 40, covers a surface of active area and therefore is a LOC); (cl. 29) each one of said plurality of substrate units includes a pair of adhesive tabs (50; i.e. layer is inherently comprised of multiple contiguous layers forming projections along substrate and therefore adhesive tabs); (cl. 59) with said carrier comprises a first side bar and second side bar (64,66); (cl. 60) wherein said first side bars comprises a plurality of first teeth (56) and said second side bar comprises a plurality of second teeth (58): (cl. 61) with teeth (56, 58) aligned.

***Allowable Subject Matter***

Claim 26, 30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims or with each substrate unit including a plurality of alignment holes.

The following is a statement of reasons for the indication of objected subject matter: the prior art does not disclose or make obvious forming a film including a plurality of substrate of polyimide including all the limitations of the independent claim.

Claims 62-80 are allowed.

The following is a statement of reasons for the indication of allowable subject matter: the prior art does not disclose or make obvious a tape comprising a plurality of substrate units with each being flanked by slots which are openings as shown in Figure 2 with cavities formed in each unit to receive wires from a respective semiconductor with a temporary carrier connected to a surface of the flexible tape wherein the carrier comprises a plurality of crossbars, with adjacent cross bars having at least one substrate units therebetween, or that that a film includes side rails with projecting portions and a carrier with a first and second side bar aligned with the side rails of the film, with the carrier in mechanical communication with said film including all the limitation of the independent claim.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James M. Mitchell whose telephone number is (571) 272-1931. The examiner can normally be reached on M-F 10:30-8:00.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamand Cuneo can be reached on (571) 272-1957. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2827

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jmm  
July 9, 2004



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